

FRUIT AVENUE PLUME (BERNALILLO COUNTY) NEW MEXICO

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Site ID: 0604068



EPA REGION 6 CONGRESSIONAL DISTRICT 01

Contact:
Bart Cañellas 214-665-6662

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Background

The Fruit Avenue Plume Site is located within the city limits of Albuquerque, Bernalillo County, New Mexico. The contamination is contained in an aquifer underlying a portion of downtown Albuquerque, predominantly in the central business district.

The suspected source of the contamination is a defunct dry cleaning facility, Elite Cleaners, which operated from approximately 1940-1970.

The estimated size of the plume is 2/3 mile long, 550 to 1300 feet wide, and at least 544 feet deep.

The primary contaminant of concern is TCE, a chlorinated solvent.

187,327 people receive their drinking water from wells within a four-mile radius of the source site. Within one mile of the site, the total population is approximately 11,806, a large percentage of which are workers, not full-time residents. There are two hospitals and two City of Albuquerque municipal wells located 1 to 1 3/4 miles from the source site. The area of contamination consists only of the subsurface soils and ground water.



The Record of Decision (ROD) was signed on September 27, 2001 and an Explanation of Significant Differences (ESD) on September 18, 2006. The major components of the remedy as modified by the ESD are extraction and treatment of contaminated shallow, intermediate, and deep zone ground water by using a pump and treat system and by re-injecting some of the treated water. Also included is the implementation of ground water use restrictions and ground water monitoring.

Current Status

- The construction of the Air Stripper Treatment Plant (ASTP) was completed in 2004. Operation of the ASTP started in January 2005. The system operated on a full-time basis. Initially influent concentrations of TCE were about 15 ppb; TCE has not been detected in effluent samples. When influent concentrations reached the remedial goal of 5 ppb the system moved operations from full-time to pulsed operation mode.



- On January 28, 2005, EPA held a ceremony at the site with the startup of the pump and treat system. Attendees included the Congresswoman Heather Wilson, Mayor Chavez of the City of Albuquerque, Ron Curry, Secretary of State, Sam Coleman, Director of EPA Superfund Division and various local and State dignitaries.
- Pulsed pumping operation involves collecting samples for ground water monitoring and operation of “Run” and “Rest” periods of approximately six months or more. Current sampling shows that influent concentrations showed a slight rebound above the remedial goal, therefore the system was switched to the “Run” period in August 2010, while further monitoring continues.
- The first Five-Year Review was completed on December 23, 2011 and found the implemented remedy protective at this time. EPA and NMED continue monitoring the performance of the remedy.
- The first semi annual ground water sampling event for this year was conducted in February 2012.
- EPA and its contractor installed a new monitoring well in March/April 2012 east of I-25 and north of Roma Avenue, as per recommendations of the first Five-Year review.
- The second semi annual ground water sampling event for this year was conducted in August 2012.
- EPA and NMED are currently conducting an update of the previous Monitored Natural Attenuation (MNA) Study and an update of the ground water model.

Benefits

Remediation of the contaminated media will reduce the health and ecological risk associated with the contaminants.

Implementation of the selected remedy, and the ongoing monitoring efforts by the EPA and the State, ensure that there is no threat to the local groundwater wells that are part of the drinking water supply.

Although only the sub-surface earth material and ground water are contaminated with TCE and PCE, the total land value will rise and the cleanup will encourage future business investments in the downtown Albuquerque business district.

National Priorities Listing (NPL) History

Proposal Date: July 22, 1999
Final Date: October 23, 1999

Location: The Fruit Avenue Plume Site is located within the city limits of Albuquerque, Bernalillo County, Central New Mexico.

Population: 187,327 people receive their drinking water from wells within a four-mile radius of the source site. Within one mile of the site, the total population is approximately 11,806, a large percentage of which are workers, not full-time residents. There are two hospitals and two City of Albuquerque municipal wells located 1 to 1 3/4 miles from the source site.

Setting: The contamination is contained in an aquifer underlying a portion of downtown Albuquerque, predominantly in the central business district.
The suspected primary source of the Trichloroethane (TCE) is a defunct dry cleaning facility, Elite Cleaners, which operated from approximately 1940-1970. The estimated size of the plume is 2/3 mile long, 550 to 1300 feet wide, and at least 544 feet deep.

Photos: [Site](#)

Principal Pollutants:

The primary contaminant of concern is TCE, a chlorinated solvent, found at levels up to 90 micrograms per liter (ug/L) in the ground water. The maximum Contaminant Level (MCL) that is allowed under the Safe Drinking Water Act is 5 ug/L. Tetrachloethene (PCE), cis-1, 2-Dichloroethene (cis-DCE), and trans-1, 2-Dichloroethene (trans-DCE) are also found in some areas of the ground water plume, but these contaminants are below their respective MCLs.

Chlorinated solvents are heavier than water and readily sink in ground water. An exact or calculated volume of the chlorinated solvent (TCE) released into the ground water at the former site of Elite Cleaners is unknown at this time. However, very small amounts of these chemicals can contaminate large volumes of soil and ground water.

The area of contamination consists only of the subsurface soils and ground water. Therefore, the ground surface conditions are safe for people who live, work, and visit the area in the immediate vicinity of the Site.

Health Considerations

There is a potential for elevated health/ecological risk levels associated with two types of chlorinated hydrocarbon compounds, TCE and PCE, involved in dry cleaning spot removal and machine shop/industrial equipment degreasing activities.

TCE and PCE are the leading concerns at this site because they are known carcinogens recognized by the Resource Conservation and Recovery Act (RCRA) and regulated under the Safe Drinking Water Act.

- The Coca-Cola production well had to be removed from service in 1989 when TCE levels exceeded the MCL of 5.0 ug/L.
- The St. Joseph Hospital well was removed from service in December 1996 when TCE levels approached the MCL. In 1997, this well exceeded the MCL for TCE.
- The Presbyterian Hospital well showed levels of TCE below MCL in 1999.
- The City of Albuquerque municipal well Yale 1, exhibited trace levels of TCE and PCE in 1999. It is unknown whether the contamination source of Yale 1 is from the Site; however, Yale 1 well is located down gradient of the Site.

Record of Decision (ROD)

Record of Decision Signed: September 27, 2001

Explanation of Significant Differences (ESD): September 18, 2006

The major components of the Selected Remedy, as modified by the ESD, Shallow, Intermediate, and Deep Zone Restoration through Pump and Treat Technology with a Re-injection Component, consists of:

- Extraction and treatment of contaminated shallow, intermediate, and deep zone ground water by using a pump and treat system consisting of air stripping and granulated activated carbon, and by re-injecting a portion of the treated water,
- Implementation of ground water use restrictions until remediation goals for ground water are met, and
- Ground water monitoring (semiannual, annual, biannual) to assess the extent of contamination and risks to human health.

Site Contacts

EPA Remedial Project Manager:	Bart Cañellas	214-665-6662 or 1-800-533-3508
EPA Site Attorney:	James Costello	214-665-8045 or 1-800-533-3508
EPA Regional Public Liaison:	Donn R. Walters	214-665-6483
EPA Toll Free Number:		1-800-533-3508
NMED Project Manager:	Sabino Rivera	505-827-0387
City of Albuquerque	Danny Zamora	505-768-2751
Environmental Health Department		
dzamora@cabq.gov		